

## NEW DESCRIPTIONS

### THREE NEW SPECIES OF THE GENUS *NEOCHRYSOCHARIS* KURDYUMOV (EULOPHIDAE: ENTEDONTINAE) FROM INDIA<sup>1</sup>

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(With two plates)

Additional generic characters of pronotum, subgenital plate and external female genitalia are suggested for the genus *Neochrysocharis* Kurdyumov. Key to Indian species of the genus *Neochrysocharis* is given. Three new species are described in detail. Types have been deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

Genus *Neochrysocharis* Kurdyumov

*Neochrysocharis* Kurdyumov, 1912, *Russ. Ent. Rev.*, 12: 235.

Type-species: *Neochrysocharis immaculatus* Kurdyumov.

The genus *Neochrysocharis* was proposed by Kurdyumov (1912) for *Neochrysocharis immaculatus* Kurdyumov. Kerrich (1959) synonymised the genus *Proacrias* Ihering with *Neochrysocharis* Kurdyumov. Recently, Boucek (1977) revalidated the genus *Proacrias* Ihering on the basis of having carinae on mid of propodeum. The specimens under study resemble the genus *Neochrysocharis* Kurdyumov in keys to genera proposed by Nikoľ'skaya (1952) and Peck *et al.* (1964). We suggest some additional generic characters as follows: Pronotum of uniform width, anterior margin slightly concave, posterior margin more or less straight (Pl. 1, fig. D; Pl. 2, fig. B); first valvifers triangular with basal and apical angles at different levels (Pl. 1, fig. L;

Pl. 2, fig. I); third valvulae short, movably articulated with second valvifers (Pl. 1, fig. M; Pl. 2, fig. J); subgenital plate narrow, posterior margin with a semicircular notch in middle (Pl. 1, fig. O; Pl. 2, fig. L).

KEY TO INDIAN SPECIES OF THE GENUS *Neochrysocharis* KURDYUMOV, BASED ON FEMALES

1. Disc of fore wings with hyaline setae; costal cell of fore wings much shorter than marginal vein; postmarginal vein shorter than stigmal vein. ....2
- Disc of fore wings with coarse setae; costal cell of fore wings slightly shorter than marginal vein; postmarginal vein as long as stigmal vein (Pl. 2, fig. O & P); submarginal and marginal veins with 2 and 10 setae respectively; pedicel twice as long as wide; club three and a half times as long as wide....*N. pubipennis* sp. nov.
2. First funicle segment shorter than second; second funicle segment longer than wide (Pl. 1, fig. C); scape five times as long as wide; club four times as long as wide; marginal vein with 16 setae; axillae without transverse sutures. ....*N. hyalinipennis* sp. nov.
- Funicle segments first and second subequal in length; second funicle segment as long as wide (Pl. 2, fig. A); scape four times as long as wide; club three times as long as wide; mar-

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ginal vein with 9 setae; axillae with transverse sutures. . . . . *N. metallicus* sp. nov.

***Neochrysocharis hyalinipennis* sp. nov.**  
(Plate 1, figs. A-P)

FEMALE

*Head*.—Dark with metallic bluish reflections and reticulately sculptured, wider than long in facial view; frontovertex slightly wider than long, width one-half the total head width; ocelli white, arranged in obtuse triangle, lateral ocelli less than their own diameters from orbital and occipital margins separately; eyes red and smooth; malar space one-half the eye width; malar sutures absent; antennae inserted above lower level of eyes; prominence between antennal sockets one-fourth the width of frons between eyes; scrobes deep and convergent above; frontal fork with arms obtusely diverging, apices touching the inner orbital margins; mandibles tridentate with two acute and one rudimentary teeth (fig. A); maxillary and labial palpi each 1-segmented (fig. B).

*Antennae* (fig. C).—Yellowish brown except basal two-third of scape which is white, 7-segmented excluding 2 indistinct ring segments; scape cylindrical, five and a half times as long as wide; pedicel one and a half times as long as wide, slightly longer than first funicle segment; funicle 2-segmented, first as long as wide and shorter than second, second distinctly longer than wide; club 3-segmented, four times as long as wide (0.17:0.04 mm), longer than funicle.

*Thorax* (fig. E).—Dark with metallic bluish green reflections; dorsum reticulately sculptured; pronotum of uniform width, anterior margin slightly concave, posterior margin straight bearing 3 pairs of setae (fig. D); parapsidal furrows distinct anteriorly and faint posteriorly; scutum and scutellum with

4 and 2 setae respectively; mesopostphragma not reaching beyond the propodeum; propodeum without median carina.

*Fore wings* (fig. G).—Hyaline, slightly less than twice as long as wide (0.94:0.5 mm), rounded at apex, disc with hyaline setae; a line of hairs extending obliquely apex of submarginal vein to the base of outer wing margin; costal cell narrow, shorter than marginal vein; submarginal and marginal veins with 2 and 16 setae respectively; postmarginal vein well developed, shorter than stigmal vein (fig. H); marginal fringe short, spaced by a distance equal to one-half their length.

*Hind wings*.—Hyaline, six times as long as wide; disc with hyaline setae; marginal fringe long, one-half the wing width.

*Legs* (figs. I-K).—White except coxae which are dark brown; tarsi 4-segmented; middle tibial spur shorter than basitarsus (fig. J).

*Abdomen*.—Brown with metallic reflections, slightly longer than head and thorax together, ovipositor slightly exerted, arising from basal one-third of abdominal venter; first valvifers triangular with basal and apical angles at different levels (fig. L); third valvulae three and a half times as long as wide, one-fifth the length of second valvifers (fig. M); outer plates of ovipositor slightly longer than second valvifers (fig. N); subgenital plate narrow, posterior margin with a small semicircular notch in middle (fig. O).

Length: 1.38 mm.

MALE

Resembles female except in the following characters:

Scape four times as long as wide; funicle segments first and second subequal, each distinctly longer than wide; club five and a half times as long as wide (fig. P); fore wings

twice as long as wide (0.88:0.44); submarginal vein with 3 setae; postmarginal vein about as long as stigmal vein (0.05:0.05 mm).

Length: 1.01 mm.

*Holotype* ♀, INDIA: Uttar Pradesh, Aligarh, University campus, ex unidentified scale on *Carica papaya*, 1.v.1977 (M. Younus Khan).

*Paratypes*. 3 ♀, 1 ♂ (same data as holotype).

***Neochrysocharis metallicus* sp. nov.**

(Plate 2, figs. A-L)

FEMALE

*Head*.—Dark with metallic bluish reflections and reticulately sculptured, wider than long in facial view; frontovertex as long as wide, width slightly less than one-half the total head width; ocelli white, arranged in obtuse triangle, lateral ocelli by their own diameters from eye and occipital margins; eyes red and sparsely setose; antennae inserted above lower level of eyes; prominence between antennal sockets one-fourth the width of frons between eyes; malar space shorter than eye width; malar sutures absent; mandibles tridentate with two acute and one rudimentary teeth; maxillary and labial palpi each 1-segmented.

*Antennae* (fig. A).—Dark except scape which is yellow, 7-segmented excluding 2 indistinct ring segments; scape four times as long as wide (0.13:0.03 mm); pedicel slightly longer than wide, slightly longer than first funicle segment; funicle 2-segmented, segments first and second subequal, each about as long as wide; club 3-segmented, slightly less than three times as long as wide, much longer than funicle.

*Thorax* (fig. C).—Dark with metallic bluish reflections and reticulately sculptured; pronotum with anterior margin slightly concave,

posterior margin slightly curved bearing 3 pairs of setae (fig. B); parapsidal furrows indicating anteriorly, reaching up to scutellum by grooves; scutum wider than long and with 4 setae; each parapside with a transverse suture; scutellum as long as wide and with a pair of setae; mesopostphragma short, not reaching beyond the propodeum; propodeum smooth and without median carina.

*Fore wings*.—Hyaline, twice as long as wide, disc with hyaline setae; a line of hairs extending obliquely apex of submarginal vein to the base of outer wing margin; costal cell shorter than marginal vein; submarginal and marginal veins with 2 and 9 setae respectively (fig. D); postmarginal vein well developed, shorter than stigmal vein (fig. E); marginal fringe short, spaced by a distance equal to one-third their length.

*Hind wings*.—Hyaline, five and a half times as long as wide, disc with hyaline setae; marginal fringe long, one-half the wing width.

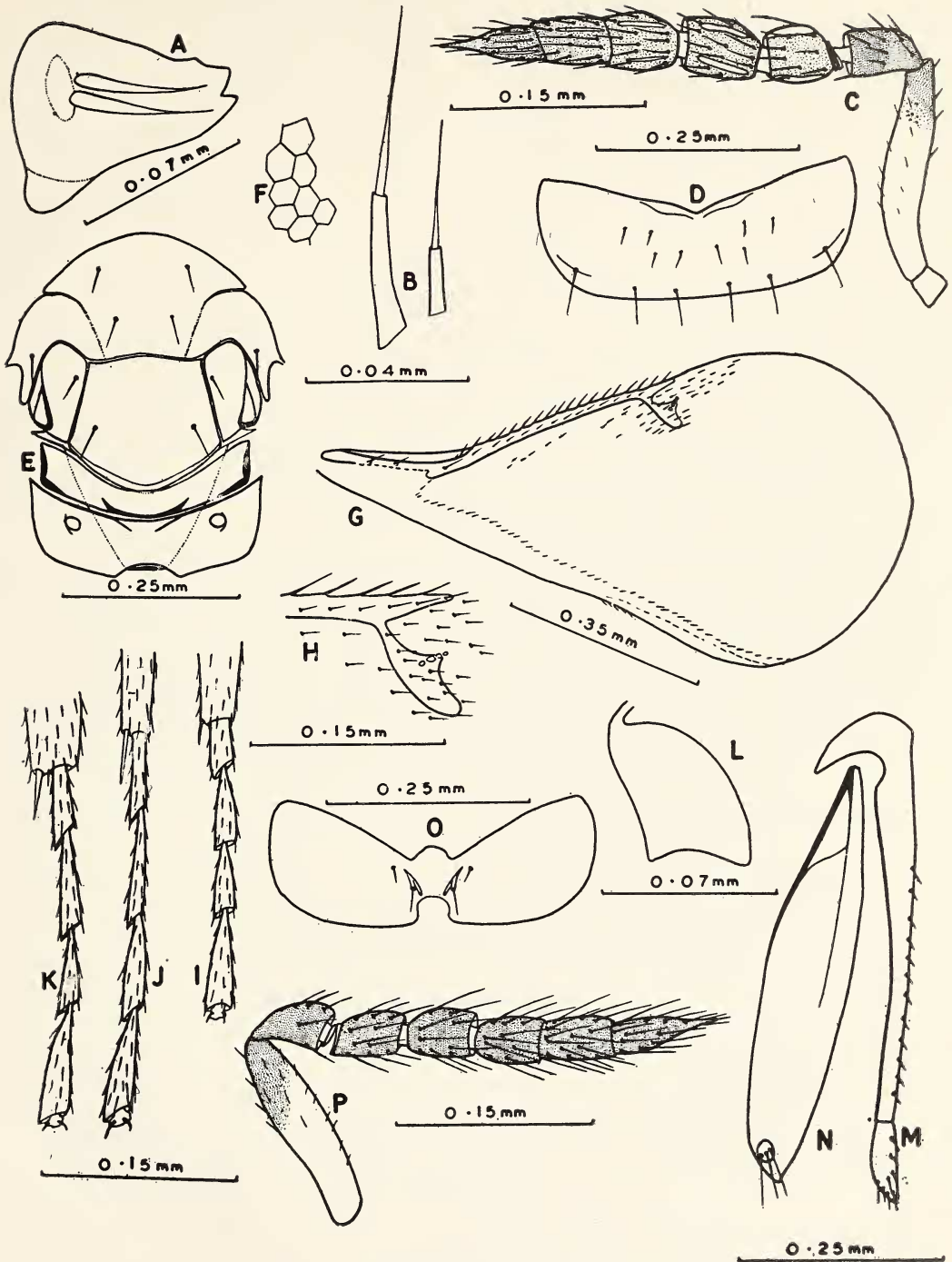
*Legs* (figs. F-H).—White except coxae which are brown; middle tibial spur shorter than basitarsus (fig. G).

*Abdomen*.—Brown with metallic bluish reflections, about as long as head and thorax together; ovipositor slightly exserted, arising from basal one-third of abdominal venter; first valvifers triangular with basal and apical angles at different levels (fig. I); third valvulae two and a half times as long as wide and about one-fifth the length of second valvifers (fig. J); outer plates of ovipositor slightly shorter than second valvifers (fig. K); subgenital plate narrow, anterior margin deeply concave, posterior margin with a notch in middle (fig. L).

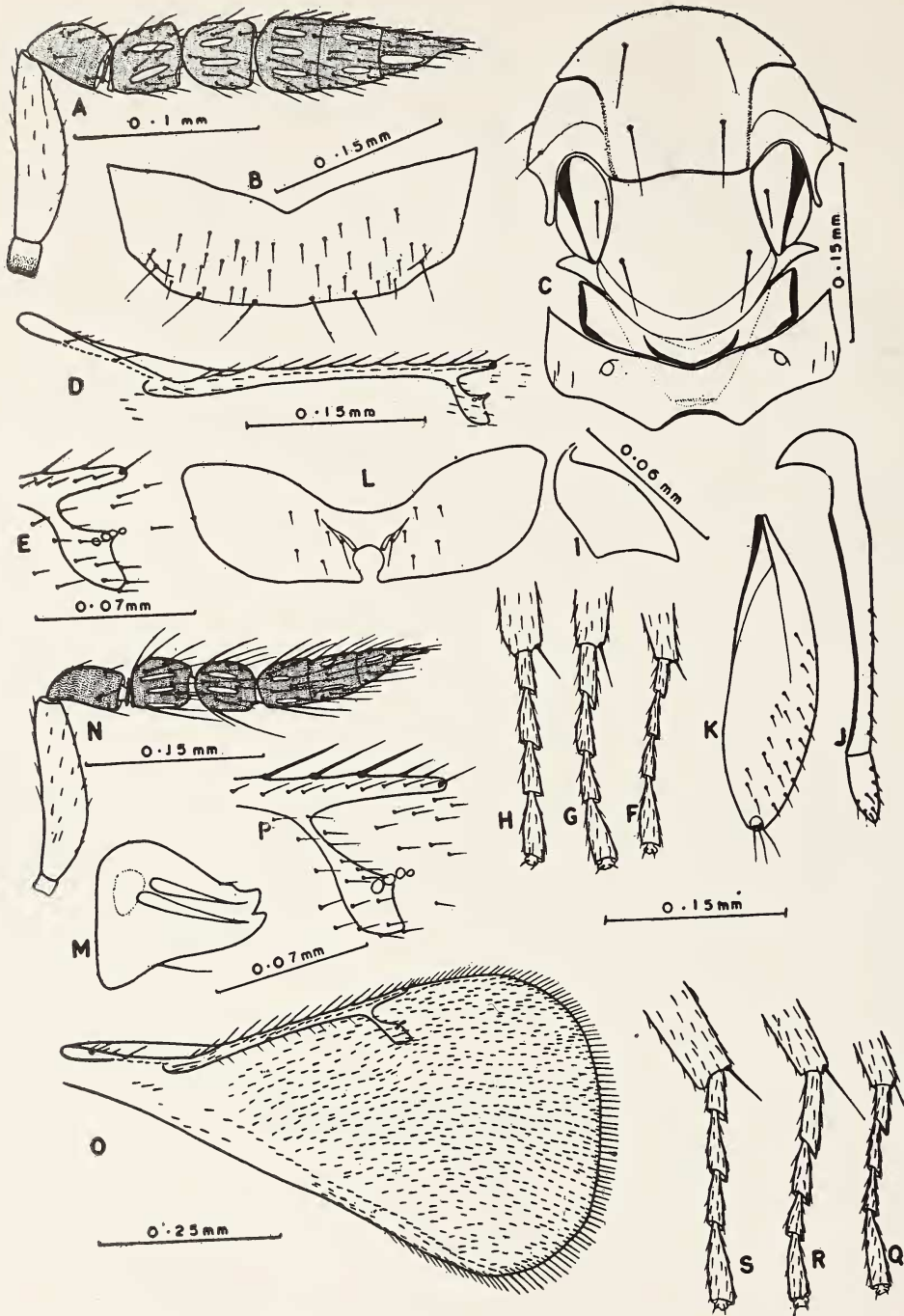
Length: 1.03 mm.

*Holotype* ♀, INDIA: Karnataka, Bangalore, ex unidentified scale on *Mangifera indica* Linn., 30.vi.1975 (M. Younus Khan).





Figs. A-P. *Neochrysocharis hyalinipennis* sp. nov., ♀, ♂: (A) Mandible, ♀; (B) Maxillary and labial palpi, ♀; (C) Antenna, ♀; (D) Pronotum, ♀; (E) Propodeum and part of thorax in dorsal view, ♀; (F) Sculpture of scutum, ♀; (G) Fore wing, ♀; (H) Part of fore wing venation, ♀; (I) Part of fore leg, ♀; (J) Part of middle leg, ♀; (K) Part of hind leg, ♀; (L) First valvifer, ♀; (M) Second valvifer and third valvula, ♀; (N) Outer plate of ovipositor, ♀; (O) Subgenital plate, ♀; (P) Antenna, ♂.



Figs. A-L. *Neochrysocharis metallicus* sp. nov. ♀: (A) Antenna, (B) Pronotum, (C) Propodeum and part of thorax in dorsal view, (D) Fore wing venation, (E) Part of fore wing venation, (F) Part of fore leg, (G) Part of middle leg, (H) Part of hind leg, (I) First valvifer, (J) Second valvifer and third valvula, (K) Outer plate of ovipositor, (L) Subgenital plate.

Figs. M-S. *Neochrysocharis pubipennis* sp. nov., ♀: (M) Mandible, (N) Antenna, (O) Fore wing, (P) Part of fore wing venation, (Q) Part of fore leg, (R) Part of middle leg, (S) Part of hind leg.